Annmarie G Carlton

List of Publications by Year
in descending order

78 papers	6,486 citations	126907 33 h-index	79698 73 g-index
107 all docs	107 docs citations	107 times ranked	4495 citing authors

#	Article	IF	Citations
1	A review of Secondary Organic Aerosol (SOA) formation from isoprene. Atmospheric Chemistry and Physics, 2009, 9, 4987-5005.	4.9	750
2	Atmospheric oxalic acid and SOA production from glyoxal: Results of aqueous photooxidation experiments. Atmospheric Environment, 2007, 41, 7588-7602.	4.1	487
3	Fine-particle water and pH in the southeastern United States. Atmospheric Chemistry and Physics, 2015, 15, 5211-5228.	4.9	413
4	Isoprene Forms Secondary Organic Aerosol through Cloud Processing:Â Model Simulations. Environmental Science & Technology, 2005, 39, 4441-4446.	10.0	405
5	Model Representation of Secondary Organic Aerosol in CMAQv4.7. Environmental Science & Technology, 2010, 44, 8553-8560.	10.0	364
6	Oligomers formed through in-cloud methylglyoxal reactions: Chemical composition, properties, and mechanisms investigated by ultra-high resolution FT-ICR mass spectrometry. Atmospheric Environment, 2008, 42, 1476-1490.	4.1	325
7	Link between isoprene and secondary organic aerosol (SOA): Pyruvic acid oxidation yields low volatility organic acids in clouds. Geophysical Research Letters, 2006, 33, .	4.0	304
8	To What Extent Can Biogenic SOA be Controlled?. Environmental Science & Technology, 2010, 44, 3376-3380.	10.0	254
9	Secondary organic aerosol yields from cloudâ€processing of isoprene oxidation products. Geophysical Research Letters, 2008, 35, .	4.0	238
10	On the implications of aerosol liquid water and phase separation for organic aerosol mass. Atmospheric Chemistry and Physics, 2017, 17, 343-369.	4.9	189
11	CMAQ Model Performance Enhanced When In-Cloud Secondary Organic Aerosol is Included: Comparisons of Organic Carbon Predictions with Measurements. Environmental Science & Technology, 2008, 42, 8798-8802.	10.0	183
12	SOA from methylglyoxal in clouds and wet aerosols: Measurement and prediction of key products. Atmospheric Environment, 2010, 44, 5218-5226.	4.1	181
13	Evidence for Oligomer Formation in Clouds:Â Reactions of Isoprene Oxidation Products. Environmental Science & Technology, 2006, 40, 4956-4960.	10.0	175
14	Particle partitioning potential of organic compounds is highest in the Eastern US and driven by anthropogenic water. Atmospheric Chemistry and Physics, 2013, 13, 10203-10214.	4.9	162
15	Modeling the formation and aging of secondary organic aerosols in Los Angeles during CalNex 2010. Atmospheric Chemistry and Physics, 2015, 15, 5773-5801.	4.9	139
16	Liquid Water: Ubiquitous Contributor to Aerosol Mass. Environmental Science and Technology Letters, 2016, 3, 257-263.	8.7	121
17	Photochemical Modeling of the Ozark Isoprene Volcano: MEGAN, BEIS, and Their Impacts on Air Quality Predictions. Environmental Science & Technology, 2011, 45, 4438-4445.	10.0	114
18	Semivolatile POA and parameterized total combustion SOA in CMAQv5.2: impacts on source strength and partitioning. Atmospheric Chemistry and Physics, 2017, 17, 11107-11133.	4.9	109

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19	Aerosol Liquid Water Driven by Anthropogenic Nitrate: Implications for Lifetimes of Water-Soluble Organic Gases and Potential for Secondary Organic Aerosol Formation. Environmental Science & Technology, 2014, 48, 11127-11136.	10.0	94
20	Aerosol optical properties in the southeastern United States in summer â€“ PartÂ1: Hygroscopic growth. Atmospheric Chemistry and Physics, 2016, 16, 4987-5007.	4.9	88
21	Simulating Aqueous-Phase Isoprene-Epoxydiol (IEPOX) Secondary Organic Aerosol Production During the 2013 Southern Oxidant and Aerosol Study (SOAS). Environmental Science & Technology, 2017, 51, 5026-5034.	10.0	86
22	Trends in particle-phase liquid water during the Southern Oxidant and Aerosol Study. Atmospheric Chemistry and Physics, 2014, 14, 10911-10930.	4.9	75
23	The Essential Role for Laboratory Studies in Atmospheric Chemistry. Environmental Science & Technology, 2017, 51, 2519-2528.	10.0	75
24	Synthesis of the Southeast Atmosphere Studies: Investigating Fundamental Atmospheric Chemistry Questions. Bulletin of the American Meteorological Society, 2018, 99, 547-567.	3.3	62
25	Aerosols from Fires: An Examination of the Effects on Ozone Photochemistry in the Western United States. Environmental Science & Technology, 2012, 46, 11878-11886.	10.0	61
26	Global inâ€cloud production of secondary organic aerosols: Implementation of a detailed chemical mechanism in the GFDL atmospheric model AM3. Journal of Geophysical Research, 2012, 117, .	3.3	57
27	Potential of Aerosol Liquid Water to Facilitate Organic Aerosol Formation: Assessing Knowledge Gaps about Precursors and Partitioning. Environmental Science & Technology, 2017, 51, 3327-3335.	10.0	55
28	Impact of a new condensed toluene mechanism on air quality model predictions in the US. Geoscientific Model Development, 2011, 4, 183-193.	3.6	53
29	Organosulfates in cloud water above the Ozarks' isoprene source region. Atmospheric Environment, 2013, 77, 231-238.	4.1	52
30	A framework for expanding aqueous chemistry in the Community Multiscale Air Quality (CMAQ) model version 5.1. Geoscientific Model Development, 2017, 10, 1587-1605.	3.6	50
31	Gas and aerosol carbon in California: comparison of measurements and model predictions in Pasadena and Bakersfield. Atmospheric Chemistry and Physics, 2015, 15, 5243-5258.	4.9	48
32	Decreasing Aerosol Water Is Consistent with OC Trends in the Southeast U.S.. Environmental Science & Technology, 2015, 49, 7843-7850.	10.0	47
33	Analyzing experimental data and model parameters: implications for predictions of SOA using chemical transport models. Atmospheric Chemistry and Physics, 2013, 13, 12073-12088.	4.9	38
34	Evaluation of simulated photochemical partitioning of oxidized nitrogen in the upper troposphere. Atmospheric Chemistry and Physics, 2011, 11, 275-291.	4.9	37
35	Southeast Atmosphere Studies: learning from model-observation syntheses. Atmospheric Chemistry and Physics, 2018, 18, 2615-2651.	4.9	36
36	Additional Benefits of Federal Air-Quality Rules: Model Estimates of Controllable Biogenic Secondary Organic Aerosol. Environmental Science & Technology, 2018, 52, 9254-9265.	10.0	36

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37	Combining Bayesian methods and aircraft observations to constrain the HO[.] + NO₂ reaction rate. Atmospheric Chemistry and Physics, 2012, 12, 653-667.	4.9	33
38	Identifying precursors and aqueous organic aerosol formation pathways during the SOAS campaign. Atmospheric Chemistry and Physics, 2016, 16, 14409-14420.	4.9	33
39	Generation expansion planning considering health and societal damages â€“ A simulation-based optimization approach. Energy, 2018, 164, 951-963.	8.8	32
40	Vertically resolved concentration and liquid water content of atmospheric nanoparticles at the US DOE Southern Great Plains site. Atmospheric Chemistry and Physics, 2018, 18, 311-326.	4.9	31
41	Evaluation of factors controlling global secondary organic aerosol production from cloud processes. Atmospheric Chemistry and Physics, 2013, 13, 1913-1926.	4.9	27
42	Modeling secondary organic aerosol using a dynamic partitioning approach incorporating particle aqueous-phase chemistry. Atmospheric Environment, 2011, 45, 1126-1137.	4.1	25
43	Microanalysis Methods for Characterization of Personal Aerosol Exposures. Aerosol Science and Technology, 1999, 31, 66-80.	3.1	23
44	Regional Air Quality Model Application of the Aqueous-Phase Photo Reduction of Atmospheric Oxidized Mercury by Dicarboxylic Acids. Atmosphere, 2014, 5, 1-15.	2.3	23
45	The Data Gap: Can a Lack of Monitors Obscure Loss of Clean Air Act Benefits in Fracking Areas?. Environmental Science & Technology, 2014, 48, 893-894.	10.0	23
46	Multiphase Atmospheric Chemistry in Liquid Water: Impacts and Controllability of Organic Aerosol. Accounts of Chemical Research, 2020, 53, 1715-1723.	15.6	23
47	The contribution of marine organics to the air quality of the western United States. Atmospheric Chemistry and Physics, 2010, 10, 7415-7423.	4.9	21
48	Examination of the impact of photoexcited NO2 chemistry on regional air quality. Atmospheric Environment, 2009, 43, 6383-6387.	4.1	20
49	Reconciling satellite aerosol optical thickness and surface fine particle mass through aerosol liquid water. Geophysical Research Letters, 2016, 43, 11,903.	4.0	18
50	Urban emissions of water vapor in winter. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9467-9484.	3.3	18
51	Assessing the effects of power grid expansion on human health externalities. Socio-Economic Planning Sciences, 2019, 66, 92-104.	5.0	16
52	Temporalization of Peak Electric Generation Particulate Matter Emissions during High Energy Demand Days. Environmental Science & Technology, 2015, 49, 4696-4704.	10.0	14
53	Diurnal and Seasonal Variations in the Phase State of Secondary Organic Aerosol Material over the Contiguous US Simulated in CMAQ. ACS Earth and Space Chemistry, 2021, 5, 1971-1982.	2.7	12
54	Chemical composition of ultrafine aerosol particles in central Amazonia during the wet season. Atmospheric Chemistry and Physics, 2019, 19, 13053-13066.	4.9	11

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55	Changing Nature of Organic Carbon over the United States. Environmental Science & Technology, 2020, 54, 10524-10532.	10.0	11
56	High Electricity Demand in the Northeast U.S.: PJM Reliability Network and Peaking Unit Impacts on Air Quality. Environmental Science & Technology, 2016, 50, 8375-8384.	10.0	10
57	On Aerosol Liquid Water and Sulfate Associations: The Potential for Fine Particulate Matter Biases. Atmosphere, 2020, 11, 194.	2.3	9
58	Modeling secondary organic aerosol formation from xylene and aromatic mixtures using a dynamic partitioning approach incorporating particle aqueous-phase chemistry (II). Atmospheric Environment, 2012, 56, 250-260.	4.1	8
59	Multiphase Chemistry: Experimental Design for Coordinated Measurement and Modeling Studies of Cloud Processing at a Mountaintop. Bulletin of the American Meteorological Society, 2017, 98, ES163-ES167.	3.3	8
60	No evidence for brown carbon formation in ambient particles undergoing atmospherically relevant drying. Environmental Sciences: Processes and Impacts, 2020, 22, 442-450.	3.5	8
61	Overview of the CPOC Pilot Study at Whiteface Mountain, NY: Cloud Processing of Organics within Clouds (CPOC). Bulletin of the American Meteorological Society, 2020, 101, E1820-E1841.	3.3	8
62	Design of a Cost-Effective Weighing Facility for PM2.5 Quality Assurance. Journal of the Air and Waste Management Association, 2002, 52, 506-510.	1.9	7
63	Aerosol Optical Thickness: Organic Composition, Associated Particle Water, and Aloft Extinction. ACS Earth and Space Chemistry, 2019, 3, 403-412.	2.7	7
64	Differences in fine particle chemical composition on clear and cloudy days. Atmospheric Chemistry and Physics, 2020, 20, 11607-11624.	4.9	7
65	Box Model Intercomparison of Cloud Chemistry. Journal of Geophysical Research D: Atmospheres, 2021, 126, .	3.3	7
66	Partitioning of Ambient Organic Gases to Inorganic Salt Solutions: Influence of Salt Identity, Ionic Strength, and pH. Geophysical Research Letters, 2021, 48, e2021GL095247.	4.0	5
67	Investigating the evolution of water-soluble organic carbon in evaporating cloud water. Environmental Science Atmospheres, 2021, 1, 21-30.	2.4	2
68	Urban aerosol chemistry at a landâ€“water transition site during summer â€“ Part 1: Impact of agricultural and industrial ammonia emissions. Atmospheric Chemistry and Physics, 2021, 21, 13051-13065.	4.9	2
69	Urban aerosol chemistry at a landâ€“water transition site during summer â€“ PartÂ2: Aerosol pH and liquid water content. Atmospheric Chemistry and Physics, 2021, 21, 18271-18281.	4.9	2
70	Partitioning of HNO3, H2O2 and SO2 to cloud ice: Simulations with CMAQ. Atmospheric Environment, 2014, 88, 239-246.	4.1	1
71	Federal Science Matters: We All Live Downwind of a Harvey-Arkema Disaster. Environmental Science & Technology, 2017, 51, 10930-10931.	10.0	1
72	Why and How to Write a Highâ€Impact Review Paper: Lessons From Eight Years of Editorial Board Service to <i>Reviews of Geophysics</i>. Reviews of Geophysics, 2017, 55, 860-863.	23.0	1

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73	A Metamodeling Framework for Quantifying Health Damages of Power Grid Expansion Plans. International Journal of Environmental Research and Public Health, 2019, 16, 1857.	2.6	1
74	Detailed Characterization of Organic Carbon from Fire: Capitalizing on Analytical Advances To Improve Atmospheric Models. ACS Symposium Series, 2018, , 349-361.	0.5	0
75	Thank You to Our Peer Reviewers for 2019. Reviews of Geophysics, 2020, 58, no.	23.0	0
76	Thank You to Our Peer Reviewers for 2020. Reviews of Geophysics, 2021, 59, e2021RG000741.	23.0	0
77	Controlling Biogenic Particle Mass with NOx and SOx. Em: Air and Waste Management Association's Magazine for Environmental Managers, 2019, null, 9-13.	0.2	0
78	Thank You to Our 2021 Peer Reviewers. Reviews of Geophysics, 2022, 60, .	23.0	0